

# Raising the quality of teaching in public schools of Pakistan: A three dimensional analysis for capacity development of in-service teachers in instructional planning and strategies

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## Abstract

In order to prepare the upcoming generation to handle the sophisticated skills required to contribute to a knowledge-based society, the teachers need to be more successful with the learners having varied needs and learning styles. Development of teachers on the basis of professional standards is part of a broader movement for the assurance of quality in various fields of human life. The standard and quality of education is directly related with the quality and standard of teachers. The standard of effective and efficient teaching comprises of three dimensions which are further divided into multiple indicators of knowledge and understanding of the content, disposition of the teachers and the skill they portray in teaching. The important question here is that: 'What are the needs of in-service teachers in planning out the instructions and selecting appropriate strategies?' A definite and workable approach to answer the question has been done through three dimensional gap analyses while assigning arbitrary scores and five levels to each indicator of all three dimensions. The mixed method and methodological triangulation approach was used for the collection of data. Three dimensional indicator wise analyses revealed the difference between existing levels and desired levels of many indicators of instructional planning and strategies. On the basis of the findings remedial areas have been identified for necessary actions. This definitely will raise the quality of learning as well.

**Key words:** In-service Teacher Education, National Professional Standards, three dimensional Gap analyses

## INTRODUCTION

At present, when there is a global struggle for quality and excellence in the field of education, teachers with a broad vision and refined professional performance can create a civilized and cultured generation (Rao, 2004). The profession of teaching demands development of sufficient teaching skills, devotion to teaching, and promising attitude for continuous professional growth and development (Chism, 1998). Therefore, teachers have gained value significance, as education has entered into a new era of quality and excellence because of the fact that teacher is a catalyst in an effective, efficient and strong education system at school level, which, in fact is essential for the success of an individual student, social structure, growth, and national progress.

A study by Ehindero (1990) established that a teacher's teaching is subject to the level of his/her pedagogical knowledge, and is different from their subject matter knowledge. He made it clear that pedagogical knowledge is not the same as knowledge of subject matter, yet they are, closely connected with it, because teachers' proficiency and use of them in the classroom will specify the depth of their subject matter knowledge.

Another quality of a good teacher is his/her attitude. Attitude can be defined as a consistent tendency to react in a particular way towards any matter, positively or negatively. Attitudes possess both components emotional and cognitive. Fazio and Roskes (1994) lamented the importance of attitudes in educational psychology because attitudes influence our social thoughts, the way we think and process social information. According to Eggen and Kauchak (2001), effective teaching demands positive attitudes on the part of teachers. A teacher must have the ability to create interest in students that is the teacher takes his students into such a state of interest about what s/he is going to teach that every other attraction is removed from their mind. The teacher should also create curiosity among the students about the next steps linking with the subject. Eggen and Kauchak (2001) enlisted many teachers' attitudes that will nurture a compassionate and supportive classroom environment. They are: enthusiastic, caring, firm, promote students' responsibility through democratic practices, effective use of lesson time, establish efficient routines, free interaction with students and their motivation provider.

Fundamental teaching methods and teaching skills are like two sides of the same coin. Methods are the outline to be pursued in teaching while skills can be compared to the required components for effective teaching. Eggen and Kauchak (2002) asserted that the integration and interaction of the teaching skills is crucial to the

teaching learning process.

### **CONCEPT OF NATIONAL PROFESSIONAL STANDARDS FOR TEACHERS IN PAKISTAN**

The National Education Policy (1998 - 2010) of Pakistan acknowledges the role of teachers in these terms, "the teacher is considered the most crucial factor in implementing all educational reforms at the grassroots level" (Government Of Pakistan, 1998, p.7). The responsibility of structuring students' attitudes and behaviors in the society lies with the teachers (Aggarwal, 2010). The standard and quality of education is directly related with the quality and standard of teachers. It is backed by strong evidence that the most important element which supports quality learning in schools is the quality of teachers. It is reflected in the efforts which are being made internationally to improve the quality of teachers.

In Pakistan under STEP project professional standards for teachers have been developed after consulting all the stakeholders in all the provinces/areas. "The Professional Standards for Teachers have been officially adopted by representatives of provinces / areas in the National Steering committee Meeting held on 7th Nov, 2008 at Islamabad" (Government Of Pakistan, 2009) .

The National Professional Standards for Teachers provide the basis for conformity on and uniformity around what comprise value teaching and assist in the expression of knowledge, understandings, skills and values for effective teaching. They also provide a strong means for rising the status and position of teachers, and a common point of reference for interaction within the profession and the society.

### **CONCEPT OF INSTRUCTIONAL PLANNING AND STRATEGIES AND ITS IMPORTANCE IN TEACHER EDUCATION AND TRAINING**

The term instructional planning and strategies is explained by Dick and Harry as the method of arranging the content in order, identification of activities that improve learning, and to make a decision about the ways to deliver the content and carry out the activities.

Instructional planning works as a bridge between curriculum and instruction (Byra, & Coulon, 1994; Clark & Yinger, 1987) develops environment that supports effective learning (Clark & Dunn, 1991; Reiser & Dick, 1996), and in return affects the working that takes place in the classroom situation (Byra, & Coulon, 1994; Clark & Dunn, 1991; Clark & Peterson, 1986; Clark & Yinger, 1987). If a teacher has the ability to plan effectively it does not only compliment his/her success (Arnold, 1988; Borko & Niles, 1987) but also the product of the reforms in the field of education (Hoogveld, Paas, Jochems, & Van Merriënboer, 2002).

From a psychological point of view, to know the thinking process of the proficient teachers while they plan for instruction is of vital importance in knowing how teachers grasp, understand, value and convert information; then devise plans; and eventually act upon that information and those plans (Clark, 1988).

Instructional planning and strategies on the whole are an essential part of the instructional course of action. Gagne describes, the planning and analysis steps the "architecture" of the lesson, while the instructional strategies are the "bricks and mortar". In fact this is where the ways are actually selected to teach the learner (Gagné, 1988).

The two very important components of teacher training are: teacher knowledge of the subject matter and how it is taught. Since teaching is considered transfer of knowledge in an organized and systematic way, it is important to know how this teaching is planned and delivered. Planning relates to: what to deliver, how to deliver, when to deliver, where to deliver and whom to deliver. This demands planning for the instruction by using different strategies for the transfer of knowledge. On these basis originated the concept of instructional planning and strategies and it has been included as an established standard in the National Professional Standards for Teachers in Pakistan.

The standard of Instructional planning and strategies has three main dimensions (i) knowledge and understanding of the content, (ii) Dispositions (behaviour, attitude and value) and (iii) Performance and skills which are further sub-divided into multiple indicators on the basis of which each dimension can be measured individually and also mutually as a complete standard. This important standard with twenty two indicators is needed to be acquired by teachers in its true spirit.

### **RESEARCH OBJECTIVES**

The objectives of the study were:

1. To determine the existing levels of secondary school teachers regarding instructional planning and strategies.  
To investigate:
2. At what levels are the secondary school teachers on the three dimensional professional standard of instructional planning and strategies?
3. What components and dimensions of this professional standard need remedial actions for the capacity development of secondary school teachers?

## RESEARCH METHODOLOGY

The study was conducted by using quantitative as well as qualitative method of research. Data were collected through survey and observation.

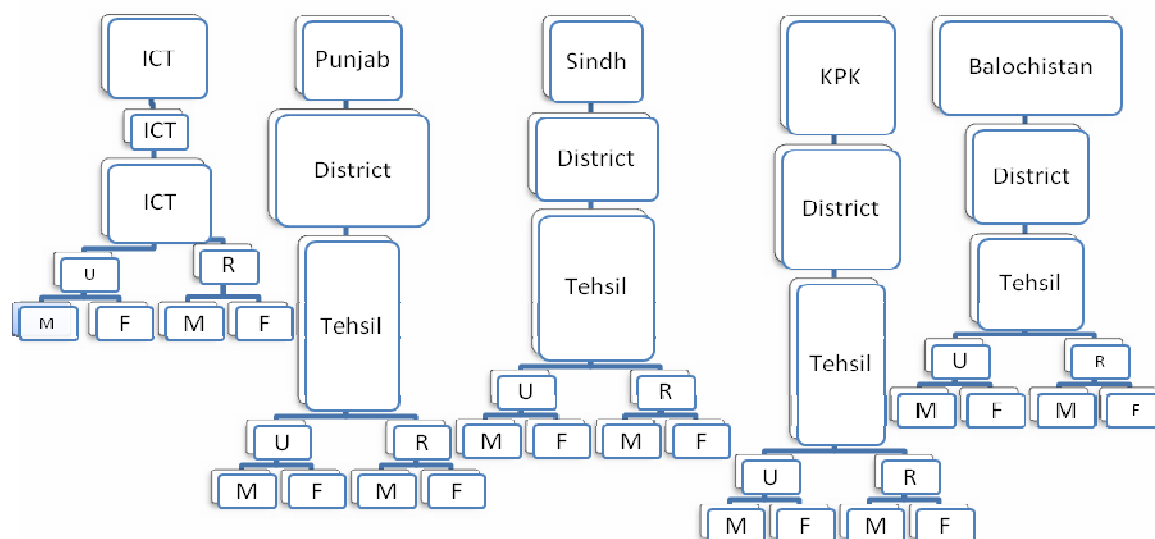
### Population:

Population of the study comprised of:

- i. Secondary school head teachers (Principals, Head-masters, Head- mistresses).
- ii. Secondary school teachers (Teachers teaching any subject to classes IX and X irrespective of their qualification)
- iii. Secondary school students (Students studying in classes IX and X)

### Sample and Sampling Technique:

Islamabad Capital Territory and one district from each province were conveniently selected. Furthermore, one Tehsil from each selected district was randomly selected, together with the Islamabad capital territory. The detail is given in figure 1.



Fig

ure 1: Sample of the study.

ICT: Islamabad Capital Territory, KPK: Khyber Pakhtunkhwa, U: Urban, R: Rural, M: Male, F: Female

For the administration of the instruments, three types of sample were drawn according to multi stage proportionate stratified sampling.

The strata of the study were:

- Location wise - urban and rural
- Gender wise - male and female

### 1. Secondary school head teachers

To serve the purpose of the study, 80 secondary school head teachers of the 80 secondary schools were selected (in case any head teacher of the secondary school was not available then another school was selected from the same sample area). For this research 80 secondary school head teachers {24 urban (13 male, 11 female) and 56 rural (37 male, 19 female)} were selected.

**2. Secondary school teachers** = 400 (according to L. R. Gay 400 is the appropriate sample size for a population of above 100000) Gay, L. R. (1992).

400 secondary school teachers were selected through proportionate stratified sampling from the 80 secondary schools, at least 5 teachers from each secondary school were selected, if there was any school having less than 5 secondary school teachers then another school from the same area was selected to get the required number. 400 SSTs {urban 120(male 65, female 55) and rural 280 (male 180, female 100)} comprised the sample. From 400 secondary school teachers 80 were selected through convenient sampling for the purpose of observation. It was one time observation for a single lesson. In the next step, out of 80 secondary school teachers (selected for observation) 40 were selected for the purpose of interview through convenient sampling. A face-to-face, individual, non recorded structured interview was conducted according to the check list.

### 3. Secondary school students

1200 secondary school students (3 students for each teacher; 15 from each secondary school) were selected through stratified sampling from the 80 secondary schools. 1200 secondary school students {330 urban (195 male, 135 female) and 870 rural (585 male, 285 female)} were taken from each Tehsil and ICT.

#### INSTRUMENTS:

1) A self-report questionnaire, Teacher Behaviours Inventory and a rating scale were developed to measure the existing levels of secondary school teachers in the three dimensions of Instructional planning and strategies.

*Dimension 1:* Knowledge and Understanding (7 indicators): Self-report questionnaire included the concepts related to whether the teacher knows and understands instructional planning and strategies.

*Dimension 2:* Dispositions (5 indicators): Self-report Teacher Behaviours Inventory was designed according to the Teacher Behaviors Inventory developed by Murry (1983) to measure the level of Dispositions.

*Dimension 3:* Performances and Skills (8 indicators): Self-report rating scale was developed for the performance and skill assessment of teachers.

2) A Student's Scale for Teacher Behaviours Measurement was designed according to the Teacher Behaviors Inventory developed by Murry (1983) for collecting data from the secondary school students about their teachers' behaviours in the light of various indicators of Dispositions of Instructional planning and strategies.

3) A rating scale based on all the indicators of Performances & Skills dimension of Instructional planning and strategies was developed for the collection of data from the secondary school head teachers about the performance of the secondary school teachers working in their institutions.

4) Observation check list was developed to measure the existing levels of secondary school teachers through classroom observation according to the dimension of Knowledge & Understanding of Instructional planning and strategies.

5) Structured interview schedule with close ended questions represented by a check list was developed to collect data from the secondary school teachers about their Knowledge & Understanding of Instructional planning and strategies in their daily classroom teaching.

#### ANALYSIS AND INTERPRETATION OF DATA

The responses of each secondary school teacher on every item were added dimension wise to calculate the frequency and percentage.

##### 1. Knowledge & Understanding dimension

The first dimension of Knowledge & Understanding has 50 items (SSTs,  $N=345 \times 50=17250$  responses). For the purpose of calculation frequency of all the items for level one was added i.e. 519 responses: therefore the percentage for each level was calculated separately:  $(519 \div 17250 \times 100=3)$ .

- Level 1 3% (519 responses) SSTs fall in this level (lowest level).
- Level 2 6.8% (1175 responses) SSTs are in the second level (second lowest level).
- Level 3 23.3% (4024 responses) SSTs fall in the third level (medium/average level).
- Level 4 35% (6034 responses) SSTs fall in fourth level (second highest level).
- Level 5 31.9% (5498 responses) SSTs fall in the fifth level (highest level).

Most of the SSTs 35% fall in the fourth level in the Knowledge & Understanding dimension. It is indicated that more than one third SSTs have the knowledge and understanding about the content of the instructional planning and strategies at the second highest level and only 32% are at the top level. After adding both the highest levels we can say that 67% secondary school teachers have the knowledge and understanding of the content of the instructional planning and strategies.

## **2. Dispositions dimension**

The second Dispositions dimension has 42 items (SSTs,  $N=345 \times 42=14490$  responses) the added frequency of all the items for level one are 195 responses, the percentage is calculated ( $197 \div 14490 \times 100=1$ ) the percentage has been rounded off to the next whole number.

- Level 1 1% (197 responses) SSTs fall in this level (lowest level)
- Level 2 4% (584 responses) SSTs are in second level (second lowest level).
- Level 3 19% (2691 responses) SSTs fall in the third level (medium/average level).
- Level 4 35% (5099 responses) SSTs fall in the fourth level (second highest level).
- Level 5 41% (5921 responses) SSTs fall in the fifth level (highest level).

Majority of the SSTs 41% fall in level five the highest level in the Dispositions dimension. It is specified that more than one third (41%) SSTs possess the attitude and value instructional planning and strategies at the highest level. After adding both the highest levels we can say that 76% secondary school teachers possess the attitude and value instructional planning and strategies.

## **3. Performance & Skills dimension**

The third Performance & Skills dimension has 20 items (SSTs,  $N=345 \times 20=6900$  responses) the added frequency of all the items for level one are 61 responses, the percentage is calculated ( $61 \div 6900 \times 100=1$ ).

- Level 1 1% (61 responses) SSTs fall in this level (lowest level)
- Level 2 5% (327 responses) SSTs are in the second level (lowest level).
- Level 3 23% (1620 responses) SSTs fall in the third level (medium/ average level).
- Level 4 37% (2581 responses) SSTs fall in the fourth level (second highest level).
- Level 5 34% (2311 responses) SSTs fall in the fifth level (highest level).

In the Performance & Skills dimension the SSTs have the highest percentage 37 in the fourth level (second highest). It is indicated that more than one third SSTs engage themselves to design and create learning experience related to performance and skills of the instructional planning and strategies at the second highest level and only 34% are at the top level. After adding both the highest levels we can say that 71% secondary school teachers engage themselves in the activities related to performance and skills of the instructional planning and strategies.

The dimensions of IPS are prioritized from the most to the least in descending order according to the need training for the capacity development of SSTs. The detail is shown in table 1.

Table 1: Dimensions according to the percentage of SSTs in need training

Dimensions	% of SSTs at level five (highest)	% of SSTs needing training
Knowledge & Understanding	32	68
Performance & Skills	34	66
Dispositions	41	59

*SSTs: Secondary school teachers*

Table 1 shows the dimensions of IPS according to the percentages of SSTs who need training.

*Top Priority: Knowledge & Understanding dimension*

The Knowledge & Understanding dimension has 32% SSTs at level 5, so 68% SSTs need training in this dimension with varying degree to achieve the desired level of the standard of the Knowledge & Understanding dimension.

*Second Priority: Performance & Skills dimension*

The Performance & Skills dimension has 34% SSTs at level 5; hence 66% SSTs need training in this dimension with varying degree to achieve the desired level of the standard of the Performance & Skills dimension.

*Third Priority: Dispositions dimension*

The Dispositions dimension has 41% SSTs at level 5, therefore 59% SSTs need training in this dimension with varying degree to achieve the desired level of the standard of the Dispositions dimension.

*i. Knowledge & Understanding dimension*

The following indicators of the Knowledge & Understanding dimension are arranged in descending order according to the percentage of the existing (obtained) level five (highest) of SSTs on the basis of the existing levels of SSTs at level five (highest) the percentage of the SSTs needing training for the capacity development to achieve the desired level of the standard in the Knowledge & Understanding dimension is given in table 2.

Table 2: Indicators of Knowledge & Understanding dimension arranged in descending order according to the need training for the capacity development of secondary school teachers

Indicator	Statement	% of SSTs level five (highest)	% of SSTs needing training
2	Principles of acquisition of reading, writing & arithmetic.	13	87
3	Availability of appropriate resources and materials for instructional...	27	73
1	The aims, goals and objectives of education.	28	72
7	Methods of teaching and classroom management.....	33	67
4	Plan instructional strategies based on students' needs .....	34	66
5	Development and use of a variety of instructional method.....	40	60
6	The effect of out of school activities including homework.....	43	57

*SSTs: Secondary school teachers*

Table 2 shows the percentage of SSTs needing training calculated i.e. for indicator 2 the percentage of

SSTs at level five is 13% ( $13\% - 100\% = 87\%$ ), likewise the percentage is calculated for all the indicators. The priority wise indicators of Knowledge and Understanding dimension according to the descending order of the percentage of SSTs needing training for capacity development to achieve the desired level of the standard of the given dimension of IPS is: indicator 2 (87% SSTs), indicator 3 (73% SSTs), indicator 1 (72% SSTs), indicator 7 (67% SSTs), indicator 4 (66% SSTs), indicator 5 (60% SSTs) and indicator 6 (57% SSTs).

## ii. Dispositions dimension

The following indicators of the Dispositions dimension are arranged in descending order according to the percentage of the existing (obtained) level five (highest) of SSTs on the basis of the existing (obtained) level five (highest) of SSTs the percentage of the SSTs who need remedial action for the capacity development in order to achieve the desired standard in the Dispositions dimension are given in table 3.

Table 3: Indicators of Dispositions dimension arranged in descending order according to the need for training for the capacity development of SSTs

Indicator	Statement	% of SSTs at level five (highest)	% of SSTs needing training
3	Pedagogy of care, collaboration team-work and cooperative learning	40	60
2	Development of critical thinking, multiple ways of independent problem solving and performance capabilities	41	59
1	Attain goals and objectives of the curriculum	42	58

SSTs: Secondary school teachers

Table 3 shows the percentage of SSTs needing training calculated i.e. for indicator 3 the percentage of SSTs at level five is 40% ( $40\% - 100\% = 60\%$ ), likewise the percentage is calculated for all the indicators.

The indicators of the Dispositions dimension according to the descending order of the percentage of SSTs who are in need of training for capacity development of SSTs to achieve the desired level of the standard of the given dimension of IPS is: indicator 3 (60% SSTs), indicator 2 (59% SSTs) and indicator 1 (58% SSTs).

## iii. Performance & Skills dimension

The following indicators of the Performance & Skills dimension are arranged in descending order according to the percentage of the existing (obtained) level five (highest) of SSTs on the basis of the existing (obtained) levels five (highest) of SSTs the percentage of the SSTs who need remedial action for the capacity development in order to achieve the desired standard in the Performance & Skills dimension is given in table 4.



Table 4: Indicators of Performance & Skills dimension arranged in descending order according to the need for training for the capacity development of SSTs

Indicator	Statement	Percentage of SSTs at level five (highest)	Percentage of SSTs needing training
7	Formal and informal methods of assessment	24	76
8	Interdisciplinary learning experiences	26	74
6	Organizing instructional activities	30	70
4	Plan homework to consolidate learning	30	70
3	Evaluation of teaching resources	36	64
1	Design appropriate instruction	36	64
2	Knowledge of classroom, school and community culture	39	61
5	Strategies to create learning experiences	47	53

SSTs: Secondary school teachers

Table 4 shows the percentage of SSTs who need training which is calculated i.e. For indicator 7 the percentage of SSTs at level five is 24% ( $24\% - 100\% = 76\%$ ), likewise the percentage is calculated for all the indicators.

The indicators of the Performance & Skills dimension according to the descending order of the percentage of SSTs who are in need of capacity development to achieve the desired level of the standard of the given dimension of IPS are: indicator 7 (76% SSTs), indicator 8 (74% SSTs), indicator 6 (70% SSTs), indicator 4 (70% SSTs), indicator 3 (64% SSTs), indicator 1 (64% SSTs), indicator 2 (61% SSTs) and indicator 5 (53% SSTs).

#### i. Triangulation of the Knowledge & Understanding dimension

The triangulation of the Knowledge & Understanding dimension is done by comparing the percentages on the self-report of the SSTs at level five which was calculated by adding the percentages of the SSTs at level four and five together, percentages of the SSTs at level five on the classroom observation by the researcher and the percentages of the SSTs at existing (obtained) level five on interview of the SSTs by the researcher. Spearman's Rank-Order Correlation was applied to determine the relationship between the questionnaire, observation and interview of the SSTs. The second indicator i.e. Principle of acquisition of reading, writing and arithmetic was not included in the observation and interview as it could not be measured in a single observation or by questioning the SSTs. The detail is given in table 5.



Table 5: Triangulation of the Knowledge & Understanding dimension and its indicators according to the percentage on the self-report existing level 5 (obtained highest) of secondary school teachers

Indicators	Research Tools	Self-report	Observation	Interview
	Statements	Level 5	Level 5	Level 5
		%	%	%
1	The aims, goals and objectives of .....	55	30	66
3	Availability of appropriate resources...	63	13	15
4	Plan instructional strategies based on students' need.....	72	80	78
5	Development and use of a variety of instructional method...	69	43	91
6	The effect of out of school activities.....	71	88	88
7	Methods of teaching and classroom.....	64	58	88
	Average	65	63	80

Table 5 shows the triangulation of the self-report, classroom observation and interview; at level five the highest obtained level of SSTs on the Knowledge & Understanding dimension.

In the average of the dimension of Knowledge & Understanding, the responses of the SSTs are 65%, 63% and 80% according to self-report, classroom observation and interview respectively. It is concluded that for the Knowledge and Understanding dimension the average results of self-report and classroom observation were consistent as there was minor difference between the averages of the two, and the result of the interview was contradictory as it showed highly favourable responses from the SSTs.

The rank-order correlation coefficient between the obtained percentage of SSTs in self-report and observation is  $r=0.8$  significant, self-report and interview is  $r=0.4$  not significant and observation and interview is  $r=0.6$  not significant at  $p<0.05$ . Hence, it is further concluded that convergence was observed as there was a significant relationship between the self-report of SSTs and the observation conducted by the researcher, whereas the results of interview contradict as no significant relationship was found between the classroom observation and interview of the SSTs by the researcher, and between the self-report of the SSTs and the interview conducted by the researcher.

## ii. Triangulation of the Dispositions dimension

The triangulation of the Dispositions dimension is done by the self-reporting of the SSTs according to the Teacher Behaviours Inventory and the reporting of the secondary school students (SSSTs) on the Student's Scale for Teacher Behaviours Measurement regarding the Dispositions of their teachers at level 5. The detail is given in table 6.

Table 6: Triangulation in the Dispositions dimension and its indicators by the secondary school students according to the percentage of the existing level five (obtained highest) of secondary school teachers

Indicators	Statement	Self-report % of SSTs at level 5	Avg.% of reporting by SSSTs
1	Attain goals and objectives of curriculum	42	57
2	Development of critical thinking, multiple ways of	41	49
3	Pedagogy of care, collaboration team-work	40	55
	Average	42	54

*SSTs: Secondary school teachers, SSSTs: Secondary school students*

Table 6 shows the triangulation between the self-report of SSTs and their reporting done by the SSSTs at level five, the highest obtained level by the SSTs, on the Dispositions dimension.

In the average of the Dispositions dimension 42% SSTs are at level 5 whereas, 54% SSTs are reported at level 5 by the SSSTs. It is concluded that in the Dispositions dimension the average results contradict as there was a significant difference between the self-report of SSTs and their reporting by the SSSTs.

The rank order correlation coefficient between the average reporting of SSSTs of their SSTs and the SSTs' self-report is contradictory as  $P=0.5$  which is not significant at  $p<0.05$ .

Thus, it is concluded that there was contradiction between the results of the self-report of secondary school teachers and the reporting of the secondary school students as there was no relationship between the self-report of secondary school teachers and the reporting of the secondary school students.

### iii. Triangulation of the Performance & Skills dimension

The triangulation of the dimension of Performance & Skills is done by the rating scale for the SSHTs regarding the Performance & Skills of the SSTs. The analysis is done on the basis of the reporting of the SSTs by the SSHT and the self-report of the SSTs at level 5 (highest). The Spearman's Rank-Order Correlation is applied to determine the relationship between the SSTs self-report and the reporting of the SSHTs about them. The detail is given in table 7.

Table 7: Triangulation in the Performance & Skills dimension and its indicators by the SSHTs according to the percentage of the existing level five (obtained highest) of secondary school teachers

Indicator	Statement	Self-report % of SSTs	SSHTs' % of SSTs
1.	Design appropriate instruction	36	33
2.	Knowledge of classroom, school and community culture	39	28
3.	Evaluation of teaching resources	35	29
4.	Plan homework to consolidate learning	30	23
5.	Strategies to create learning experiences	47	34
6.	Organizing instructional activities	29	27

7.	Formal and informal methods of assessment	24	20
8.	Interdisciplinary learning experiences	26	20
Average		34	27

*SSTs: Secondary school teachers, SSHTs: Secondary school head teachers*

Table 7 shows the comparison between the self-report of SSTs and their reporting by the SSHTs at level five the highest obtained level by the SSTs in the Performance & Skills dimension.

In the average of the dimension of Performance & Skills according to the self-report 34% SSTs are at level 5, whereas the SSHTs rated 27% SSTs at level five. It is concluded that for the Performance & Skills dimension the results were contradictory as there was a significant difference between the self-report of SSTs and the reporting of SSHTs.

The rank order correlation coefficient between the reporting of the SSHTs of their SSTs and the SSTs' self-report is  $r = .90$  significant at  $p < 0.05$ . Convergence is observed as there is a strong positive relationship between the ranks obtained by the SSTs on self-report and their reporting by the SSHTs in the Performance & Skills dimension. Therefore, it is concluded that, the self-report of secondary school teachers and their performance as reported by the secondary school head teachers is highly reliable.

## DISCUSSION

The study investigated the existing level of secondary school teachers on the three dimensions of the 4<sup>th</sup> standard (Instructional planning and strategies) of National professional Standard for Teachers in Pakistan.

Results revealed that majority of SSTs were placed at level three on the continuum of five levels. Level five was considered the highest and desired level. Unfortunately the SSTs did not achieve the top level, whereas 23% SSTs achieved the second highest level (level 4). Three-fourth majority of SSTs showed their knowledge and understanding about instructional planning and strategies at level 3. Level three is the average level among the five levels. It is encouraging that only 3% SSTs showed a low level of knowledge and understanding about instructional planning and strategies. Though the situation is not very dismal, even then all the secondary school teachers need a crash training program to abreast them with the knowledge and understanding about the objectives, aims and goals of curriculum. They need to know how the acquisition of principles of reading, writing and arithmetic is made possible. They also lack the planning of instructional material and instructional technology, developing instructional material, methods and environment for the purpose of learning.

The second aspect investigated IPS was 'Dispositions'. The status of secondary school teachers here is different than the first dimension. The dispositions dimension prepares secondary school teachers to value and show the commitment towards the attainment of curriculum goals, aims and objectives, to promote critical thinking, cooperative and collaborative learning. Unexpectedly two-third majority of studied secondary school teachers showed the existing level of the dimension 'Dispositions' of IPS at the second highest level. As compared to the first dimension the second dimension is better because one-third of the secondary school teachers were at level 3 (average level). Anyhow none of the secondary school teachers obtained the highest desired level. Keeping in view the biases in self-reporting of secondary school teachers about their commitment towards teaching, the data was also collected from the secondary school students of each secondary school teacher who constituted the sample. The information provided by the self-report of the secondary school teachers and their secondary school students was compared and found to be inconsistent as the secondary school students overrated their secondary school teachers. It appeared that not the secondary school teachers but their secondary school students gave higher scores on all the three indicators of this dimension. Surprisingly, there was consistency among the ratings of the secondary school students who rated their secondary school teachers (one secondary school teacher was rated by three secondary school students). Therefore, the responses of the secondary school students may be taken as valid measure for placing the SSTs on the highest existing level which is also the desired level. However, more than 50% secondary school teachers got the desired level of dispositions aspect. or in other words 50 or less than 50% secondary school teachers need to achieve the highest level.

The Performance & Skills dimension of IPS did not reveal any better results than the second dimension. There were eight indicators to measure the performance and skills of the SSTs in instructional planning and

strategies. In the self-report more than 50% (55%) secondary school teachers' added up score on the eight indicators placed them at second highest level (level 4) and less than 50% (42%) exhibited their teaching activities at the average level. Besides the self-report of the secondary school teachers about engaging themselves in activities related to the 'Performance & Skills' aspects of teaching, the data was also collected from the secondary school head teachers of each secondary school teacher. The information provided by the self-report of the secondary school teachers and their secondary school head teachers was inconsistent.

### **Triangulation (Qualitative)**

Contradictory results were observed in all the three dimensions of Instructional planning and strategies. For the Knowledge and Understanding dimension the averages of self-report, classroom observation and interview were contradictory. In the Dispositions dimension the results were contradictory as the overrating was observed on the part of the SSTs about their SSTs. Also in the Performance & Skills dimension contradictory results were observed as the SSTs' self-report showed overrating as compared to the reporting of the SSHTs.

### **Correlations (Qualitative)**

In the Knowledge & Understanding dimension of IPS convergence was observed as there was a significant relationship between self-report of SSTs and the observation conducted by the researcher. However, the results showed contradiction as there was no significant relationship between the classroom observation & interview of the SSTs carried out by the researcher, and between the self-report of the SSTs & the interview conducted by the researcher.

According to the Dispositions dimension, there was contradiction between the results of the self-report of SSTs and the reporting of the SSHTs of their SSTs, as there was no relationship found between the self-report of secondary school teachers and the reporting of the secondary school students. Different researches related to the study reported that for the evaluation of the behaviour and performance of teachers in their classes the ratings by the students have been used for many years. Despite the extensive use of Students' Evaluations of Teaching (SETs) (Stronge, 1997), their validity and effectiveness are not unquestionable (Cohen, 1981; Marsh, 1987). Although the findings of several research studies emphasize the validity of SETs, there are almost as many research papers that present data and interpretations signifying that such ratings are not highly correlated to students' learning (Marsh, 1987). Furthermore, it is argued that ratings might be biased by the students' subject interest, by what they personally feel about their teachers, by their own grades or their teachers' leniency in grading, and many other factors (Greenwald, 1997).

The Performance & Skills dimension of IPS showed convergence as positive relationship between self-report of SSTs and their reporting by the SSHTs was observed. This shows that the SSHTs were satisfied with the performance of the SSTs working under them, which implies that there prevails a cordial working environment between the faculty and the administration which is encouraging for any institution.

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